

Product Specification Sheet

Product Series: Yuanhui Series Outdoor LED
Display
Product Model: EV96050(KingLight)

Document Revision History

No	Revision No.	Change Status	Description of Changes (+/-)	Approved By	Date
1	V1.0	C	Creation	Kevin Meng	2025.08.21
2	V1.1	M	Modified the format and content of the specification	Joyce Dong	2025.09.09
3	V1.2	M	Modified product brightness parameters	Joyce Dong	2025.12.12

*Note on Change Status: C——Creation, A——Addition, M——Modification, D——Deletion

Disclaimer: This document outlines the technical parameters for the standard model within the Yuanhui series. Actual product specifications may vary based on the configuration specified in the sales contract. The images provided are for illustrative purposes only; the physical product may differ.

Customized products require a separate specification sheet. Continuous product optimization may lead to specification updates. Please consult with your regional sales representative before purchase.

This document provides the technical specifications and images for the standard model, serving merely as a reference. The actual terms and details shall be governed by the contract.

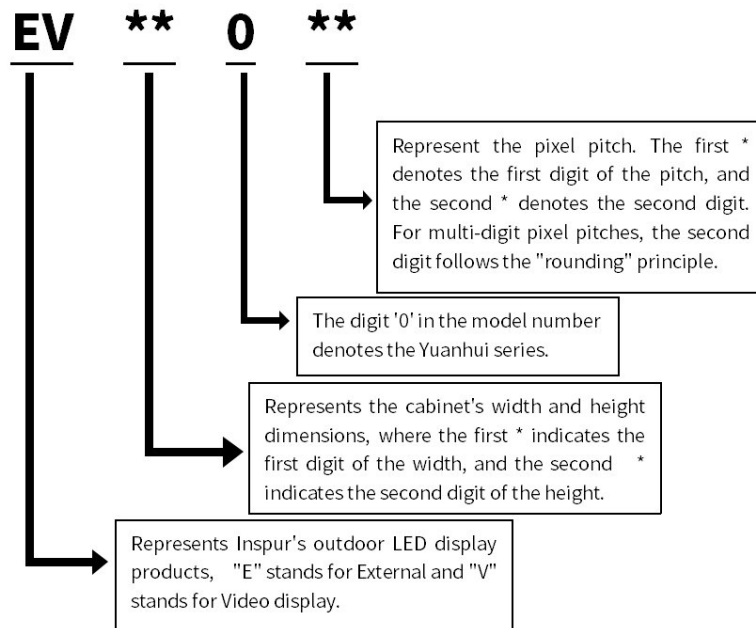
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1. Scope of Application

This technical specification applies to the Inspur Yuanhui series outdoor LED display cabinet model EV96050. The parameters provided are for standard products. Customization is available upon request.

2. Naming Rules



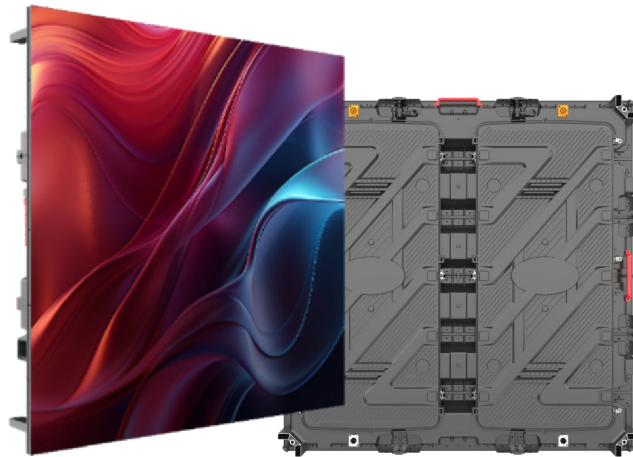
Example: EV96050 refers to an Inspur Yuanhui series outdoor display with a cabinet size of 960 mm × 960 mm and a pixel pitch of 5.0 mm.

3. Product Introduction

The Inspur Yuanhui series LED display is engineered for outdoor environments, featuring high contrast ratio, high refresh rate, wide viewing angle, and high reliability. It delivers clear and vibrant images even under direct sunlight, with natural and realistic display performance.

Specially designed drainage holes and concealed cable slots enable it to withstand extreme weather conditions such as heavy rain and dust, making it widely suitable for diverse applications including urban landmarks, stadiums, and transportation hubs.

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Die-Cast Aluminum Cabinet

3.1 Product Features

- **Superior Image Quality:** High refresh rate (3840 Hz), 5500 nits brightness, and 5000:1 contrast ratio ensure smooth, vivid visuals even in direct sunlight.
- **Wide Viewing Angle:** Horizontal & vertical viewing angles exceed 140° for consistent color and brightness across wide audience areas.
- **Robust Construction:** Die-cast aluminum cabinet ensures high flatness (≤ 0.25 mm) and structural stability.
- **Weather Resistance:** IP65-rated fully sealed modules with drainage holes and concealed cable slots withstand rain, dust, and harsh climates.
- **Advanced Calibration:** Supports single-point brightness and chromaticity calibration for exceptional color uniformity ($\geq 97\%$).
- **Flexible Installation:** Supports front or rear maintenance (rear by default), adaptable to various mounting environments.
- **Seamless Splicing:** Allows arbitrary size and shape configurations with virtually invisible seams.

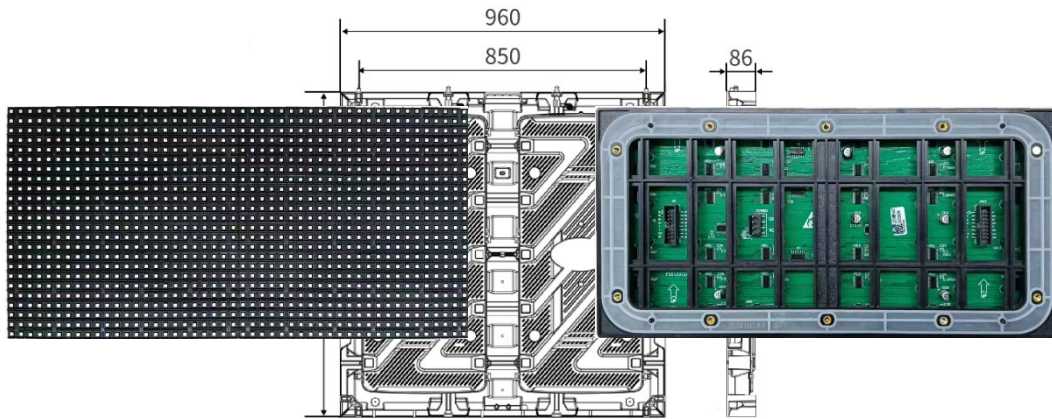
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3.2 Module Images

Front (320×160mm)	Back (320×160mm)

Note: Images are for reference only. Actual product appearance may vary.

3.3 Product Dimensions



Unit: mm

4. Product Parameters

Yuanhui Series Outdoor LED Display		
	Number	EV96050(Kinglight)
Module	Pixel Structure	1R1G1B
	LED Package	SMD1921
	Pixel Pitch (mm)	5.0
	LED Lamp	RAPTORS1820N-CB-CS
	Driver IC Solution	ICND2153+DP32019

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	Module size (W×H×D)	320×160
	Module Power Consumption	≤38W
	Module Supply Voltage	DC4.5-5V
	Module Resolution (W×H)	64×32
Cabinet	Unit Dimensions (mm)	960×960
	Unit Resolution (W×H)	192×192
	Pixel Density (dot/m ²)	40000
	Cabinet Flatness (mm)	≤0.25
	Cabinet Material	Die-Cast Aluminum
	Net Weight (kg)	25-30 (for die-cast aluminum)
	Maintenance Method	Rear Maintenance
	Protection Rating	IP65
Optical Parameters	Single-Point Brightness Calibration	Support
	Single-Point Chromaticity Calibration	Support
	Deviation of Light-Emitting Point Center Distance	<3%
	Brightness/Chromaticity Uniformity	≥97%
	Brightness (cd/m ²)	5500
	Color Temperature (K)	2000 K - 9300 K adjustable
	Contrast Ratio	5000:1
	Viewing Angle	Horizontal 140° / Vertical 140°
Electrical Parameters	Peak Power Consumption (W/m ²)	≤760
	Average Power Consumption (W/m ²)	≤255
	Power Supply Requirements	AC100-240V(50~60Hz)
	Drive Method (Constant Current Drive)	1/8 S

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	Frame Change Frequency	50/60 Hz
	Refresh Rate (Hz)	3840
	Grayscale Level	16384
	Processing Depth (bit)	14
	Brightness Control	Manual / Automatic / Programmable Control
	Interface Type	RJ-45 Interface
Usage parameters	Typical Lifespan (h)	≥100000
	Operating Temperature/Humidity	-10°C - 50°C / 10% - 90%RH (non-condensing)
	Storage Temperature/Humidity	-40°C - 60°C / 10% - 90%RH (non-condensing)
	Installation Method	Fixed Installation
	Packing Method	One cabinet per carton

5. Signal Interface Definition of Unit Panel

		Function	Pin	Signal	Function
1	● ●	2 d Data Signal	2	G1	Green Data Signal
3	● ●	4 e Data Signal	4	GND	Power Ground
5	● ●	6 d Data Signal	6	G2	Green Data Signal
7	● ●	8 e Data Signal	8	GND	Power Ground
9	● ●	10 w Decode Signal	10	B	Row Decode Signal
11	● ●	12 w Decode Signal	12	GND	Power Ground
13	● ●	14			
15	● ●	16			
HUB75E		Lock Signal	14	LAT	Latch Signal
13	● ●	Enable Signal	16	GND	Power Ground

6. Precautions

Item		Description
Environmental Precautions	Temperature Requirements	Operating: -10°C to 50°C. Temperature control required outside this range. Storage: -40°C to 60°C. LED Surface Temp During Operation: ≤60°C.

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	Humidity Requirements	Operating & Storage: 10% to 90% RH (non-condensing). Dehumidify if exceeding 90% RH.
	Aging Process After Extended Storage	If stored >1 month unopened or powered off >48 hours after unboxing, perform stepwise brightness aging: 10% brightness – ≥1 hour 30% brightness – ≥1 hour 60% brightness – ≥2 hours 80% brightness – ≥1 hour 100% brightness – ≥1 hour Then return to normal operating brightness.
	Dust Prevention Requirements	The rear panel features an IP6X dustproof rating. To maximize product lifespan, the display should be minimally exposed to high-dust environments such as sandy outdoor areas or dusty industrial workshops.
	Corrosion-Resistant Gas Protection	Corrosive gases can cause corrosion and crystal leakage in electronic components.
	Electromagnetic Radiation Protection	Do not install where field strength exceeds 5 V/m.
	Anti-static	It prevents damage to electronic components caused by static electricity in humid environments and also avoids electrical leakage that could harm the human body.
	Shock Resistance	The display screen should be mounted on a sturdy and reliable installation structure that is free from intense vibrations.
	Personal Injury Prevention	The installation angle and height of the display should be appropriate, and sharp edges should be packaged to prevent injury to personnel.
	Special Environment Considerations	Use with caution or consult Inspur for guidance in the following environments: 1) Coastal, poolside, basement, or tunnel installations. 2) Chemical, sulfide, or halogen-exposed locations. 3) High sand/dust or strong UV radiation areas. 4) Strong electromagnetic fields. 5) Temperatures below -20°C or above 55°C.
Usage	Cleaning Method	Cleaning: Use a soft-bristled brush only. Do not use liquids on LED

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Precautions		surfaces. Maintenance: Follow ESD guidelines during handling and assembly.
	Electrostatic Discharge (ESD) Protection	Installers must wear anti-static wristbands and use grounded tools.
	Safety Requirements	It is essential to ensure the stability of the power supply system, maintaining normal levels of frequency, voltage, and current harmonics. The metal components of the display screen, the housing of the switching power supply, and the enclosure must be properly grounded, with attention given to ensuring that the grounding resistance is $\leq 1\Omega$. Additionally, the leakage current to ground should not exceed 5% of the input current. The electrical strength should comply with the provisions of Section 5.7.5 in the SJ/T11141-2017 General Specification for Light Emitting Diode (LED) Displays.

Note:

The values provided are typical for standard production. Slight variations may occur between batches. Final product specifications are subject to the factory inspection report.

For customized configurations or the latest updates, please contact your regional Inspur representative.

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